

Release notes for ENDF/B-VII.1 standards sublibrary

December 20, 2011

ERROR SUMMARY

- checkr** File has wrong sublibrary ID number in header: `std-001_H_001.endf`, `std-002_He_003.endf`, `std-003_Li_006.endf`, `std-005_B_010.endf`, `std-006_C_000.endf`, `std-079_Au_197.endf`, `std-092_U_235.endf`, `std-092_U_238.endf`
- checkr** Missing a section/file: `std-001_H_001.endf`, `std-002_He_003.endf`, `std-003_Li_006.endf`, `std-005_B_010.endf`, `std-006_C_000.endf`, `std-006_C_000.endf`, `std-079_Au_197.endf`, `std-092_U_235.endf`, `std-092_U_238.endf`
- checkr** This file only allowed in neutron sublibrary: `std-001_H_001.endf`, `std-006_C_000.endf`
- fizcon** Data for a reaction started at a minimum E_{in} that is incorrect, based upon reaction's Q value or other ENDF expectations.: `std-092_U_238.endf`
- fizcon** Data for a reaction started at a minimum E_{in} that is incorrect, based upon reaction's Q value.: `std-003_Li_006.endf`, `std-005_B_010.endf`, `std-079_Au_197.endf`
- fizcon** Missing files (probably spectra for outgoing particles): `std-001_H_001.endf`, `std-002_He_003.endf`, `std-005_B_010.endf`, `std-006_C_000.endf`
- psyche** Missing total and/or elastic so can not do cross section sanity tests: `std-001_H_001.endf`, `std-006_C_000.endf`

- checkr Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT= 125, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.
```

2. This file only allowed in neutron sublibrary

```
ERROR(S) FOUND IN MAT= 125, MF= 4, MT= 2
FILE 4 ALLOWED ONLY IN A NEUTRON DATA SUBLIBRARYSEQUENCE NUMBER 1
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 1 TO 99999
SECTION MAT= 125 MF= 4 MT= 2 IS MISSING
```

3. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT= 125, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19 SEQUENCE NUMBER 4
DIST-DEC06 20111222
```

- fizcon Errors:

1. Missing files (probably spectra for outgoing particles)

```
ERROR(S) - MISSING SECTIONS IN MAT -1 MF 6
PRESENCE OF FILE 3, MT= 2 REQUIRES AN EQUIVALENT SECTION IN FILE 6
```

- psyche Errors:

1. Missing total and/or elastic so can not do cross section sanity tests

```
CANNOT PERFORM WICK LIMIT TEST BECAUSE TOTAL AND/OR ELASTIC CROSS SECTIONS ARE MISSING
```

- checkr Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT= 225, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.
```

2. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT= 225, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19 SEQUENCE NUMBER 4
DIST-DEC06 20111222
```

- **fizcon** Errors:

1. Missing files (probably spectra for outgoing particles)

```
ERROR(S) - MISSING SECTIONS IN MAT  -1 MF  6
PRESENCE OF FILE 3, MT= 103 REQUIRES AN EQUIVALENT SECTION IN FILE 6
```

std-003_Li_006.endf

- **checkr** Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT= 325, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.
```

2. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT= 325, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19          SEQUENCE NUMBER 4
DIST-DEC06                               20111222
```

- **fizcon** Errors:

1. Data for a reaction started at a minimum Ein that is incorrect, based upon reaction's Q value.

```
ERROR(S) FOUND IN MAT= 325, MF= 3, MT=105
THE MINIMUM INCIDENT ENERGY OF 2.53000E-02(EV)
SHOULD BE 1.00000E-05(EV) FOR Q= 4.78380E+06(EV)
```

std-005_B_010.endf

- **checkr** Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT= 525, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.
```

2. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT= 525, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19          SEQUENCE NUMBER 4
DIST-DEC06                               20111222
```

- **fizcon** Errors:

1. Missing files (probably spectra for outgoing particles)

```
ERROR(S) - MISSING SECTIONS IN MAT 525 MF 6
  PRESENCE OF FILE 3, MT= 107 REQUIRES AN EQUIVALENT SECTION IN FILE 6
  PRESENCE OF FILE 3, MT= 800 REQUIRES AN EQUIVALENT SECTION IN FILE 6
  PRESENCE OF FILE 3, MT= 801 REQUIRES AN EQUIVALENT SECTION IN FILE 6
```

2. Data for a reaction started at a minimum Ein that is incorrect, based upon reaction's Q value.

```
ERROR(S) FOUND IN MAT= 525, MF= 3, MT=107
  THE MINIMUM INCIDENT ENERGY OF 2.53000E-02(EV)
  SHOULD BE 1.00000E-05(EV) FOR Q= 2.79000E+06(EV)
```

...

std-006_C_000.endf

- checkr Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT= 600, MF= 3, MT=451
  LRP = 0 Requires the presence of File 2, but it is missing.
```

2. This file only allowed in neutron sublibrary

```
ERROR(S) FOUND IN MAT= 600, MF= 4, MT= 2
  FILE 4 ALLOWED ONLY IN A NEUTRON DATA SUBLIBRARYSEQUENCE NUMBER 1
  SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 1 TO 99999
```

3. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT= 600, MF= 1, MT=451
  INVALID SUBLIBRARY NUMBER NSUB = 19 SEQUENCE NUMBER 4
```

4. Missing a section/file

```
ERROR(S) FOUND IN MAT= 600, MF=33, MT= 2
  SECTION MAT= 600 MF= 4 MT= 2 IS MISSING
```

- fizcon Errors:

1. Missing files (probably spectra for outgoing particles)

```
ERROR(S) - MISSING SECTIONS IN MAT 600 MF 6
  PRESENCE OF FILE 3, MT= 2 REQUIRES AN EQUIVALENT SECTION IN FILE 6
```

- psyche Errors:

1. Missing total and/or elastic so can not do cross section sanity tests

CANNOT PERFORM WICK LIMIT TEST BECAUSE TOTAL AND/OR ELASTIC CROSS SECTIONS ARE MISSING

std-079_Au_197.endf

- checkr Errors:

1. Missing a section/file

ERROR(S) FOUND IN MAT=7925, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.

2. File has wrong sublibrary ID number in header

ERROR(S) FOUND IN MAT=7925, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19 SEQUENCE NUMBER 4
DIST-DEC06 20111222

- fizcon Errors:

1. Data for a reaction started at a minimum Ein that is incorrect, based upon reaction's Q value.

ERROR(S) FOUND IN MAT=7925, MF= 3, MT=102
THE MINIMUM INCIDENT ENERGY OF 2.53000E-02(EV)
SHOULD BE 1.00000E-05(EV) FOR Q= 6.51238E+06(EV)

std-092_U_235.endf

- checkr Errors:

1. Missing a section/file

ERROR(S) FOUND IN MAT=9228, MF= 3, MT=451
LRP = 0 Requires the presence of File 2, but it is missing.

2. File has wrong sublibrary ID number in header

ERROR(S) FOUND IN MAT=9228, MF= 1, MT=451
INVALID SUBLIBRARY NUMBER NSUB = 19 SEQUENCE NUMBER 4
DIST-DEC06 20111222

std-092_U_238.endf

- checkr Errors:

1. Missing a section/file

```
ERROR(S) FOUND IN MAT=9237, MF= 3, MT=451
  LRP = 0 Requires the presence of File 2, but it is missing.
```

2. File has wrong sublibrary ID number in header

```
ERROR(S) FOUND IN MAT=9237, MF= 1, MT=451
  INVALID SUBLIBRARY NUMBER NSUB = 19          SEQUENCE NUMBER 4
  DIST=DEC06                                20111222
```

• **fizcon** Errors:

1. Data for a reaction started at a minimum E_{in} that is incorrect, based upon reaction's Q value or other ENDF expectations.

```
ERROR(S) FOUND IN MAT=9237, MF=33, MT= 18
  ENERGY INCORRECT          SEQUENCE NUMBER 4
    EXPECT 1.00000E-05, FIND 5.00000E+05
  ENERGY INCORRECT          SEQUENCE NUMBER 734
    EXPECT 1.00000E-05, FIND 5.00000E+05
```